

Work Order ID 84000

May-01-12 10:37:06 AM

Shp 29/106

84000

Page 1

Item ID: D3041-1

Accept

N9000040100

Setup Start *NS1*

Revision ID:

Item Name: Clamp

Stop *NS2*

Start Date: 01/05/2012 Start Qty: 30.00

30

Cust Item ID:

Required Date: 15/05/2012 Req'd Qty: 30.00

30

Customer:

Reference:

Approvals: Process Plan: M65

Date: 12/05/10 Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3041

Rev C

100

0.00

100

BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut D2423 Extrusion: 1.250" Long

cut @ meter

110

0.00

110

HAAS CNC VERTICAL MACHINING #1

HAAS

Memo

0.00

HAAS CNC vertical machine #1

Machine per folio FA153

DWG REV:

FOLIO REV:

issue P/O to meter

machine as per dwg D3041 REV.C

P016878

P/1205-2

120

0.00

120

QC2 Inspect parts off machine FA1/FA1B

QC

Memo

0.00

Quality Control

Rec'd + inspect for transit damage
attached c/f C to w/o

P/4/50 (30)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 84000

84000

Page 2

May-01-12 10:37:06 AM

Item ID: D3041-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Clamp

Stop *NS2*

Start Date: 01/05/2012 Start Qty: 30.00

30

Cust Item ID:

Required Date: 15/05/2012 Req'd Qty: 30.00

30

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* QC Quality Control	QC6- Inspect parts - second check Memo	0.00 0.00		0.7/06/27		Count 30			
140 *140* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00				30		12.6.27	
150 *150* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				30		12.6.28	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 84000***84000***

Page 3

May-01-12 10:37:06 AM

Item ID: D3041-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Clamp

Stop

NS2

Start Date: 01/05/2012 Start Qty: 30.00

30

Cust Item ID:

Required Date: 15/05/2012 Req'd Qty: 30.00

30

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
160									
Powdercoat		0.00				30		20	12/06/28
Powder Coating	Memo Mask inside of 0.8120" diameter hole START TIME: 10h25 OVEN TEMPERATURE: 320°F FINISH TIME: 10h55		M120222						
170	QC3- Inspect Part Finish	0.00							
170									
QC		0.00				30		12-06-28	
Quality Control	Memo								
180	Small Fab	0.00							
180									
Small Fab		0.00				30			PF 12-06-29
Small Fab	Memo 1- Press D2611 bearing into lug as per Dwg D304 2- Stake bearing into place as per Dwg D3041								

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 84000

May-01-12 10:37:06 AM

84000

Page 4

Item ID: D3041-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Clamp

Stop

NS2

Start Date: 01/05/2012 Start Qty: 30.00

30

Cust Item ID:

Required Date: 15/05/2012 Req'd Qty: 30.00

30

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	QC5- Inspect part completeness to step on W/O	0.00							
190									
QC	Memo	0.00							
Quality Control									
200	Identify as per dwg & Stock Location: 462	0.00							
200									
Packaging	Memo	0.00							
Packaging									
210	QC21- Final Inspection - Work Order Release	0.00							
210									
QC	Memo	0.00							
Quality Control									

SP

ML5 12/06/29

MF 12-06-29

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

May-01-12 10:37:09 AM

Page 1

Work Order ID: 84000

84000

Parent Item: D3041-1

D3041-1

Parent Item Name: Clamp

Start Date: 01/05/2012

Required Date: 15/05/2012

Start Qty: 30.00

Required Qty: 30.00

Comments: IPP RevA: as per revC1 DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2611

Manufactured

No

100

Each

29.0000

1

30

D2611

Bearing

**

30

FF 12-06-29

Location

Loc Qty

Loc Code

ST012

29

B84474

6

79867

29

29

D2423

Manufactured

No

180

f

546.5580

0.0833

2.630526

D2423

Lug Extrusion

**

02/12/12

Location

Loc Qty

Loc Code

MAT006

546.558

43722

161.5

68331

81.058

81557

304

2.64

D3041-1P

X 30

12/15/27 (20)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	84000
Description: Clamp		Part Number:	D3041-1
Inspection Dwg: D3041 Rev: C		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ **First Article**

 ☐ **Prototype**

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
4.20	+/-0.030					
0.275	+/-0.010					
R1.225	+/-0.010					
0.400	+/-0.010					
R0.250	+/-0.010					
0.313	+/-0.010					
R0.063	+/-0.010					
1.19	+/-0.030					
1.124	+/-0.010					
0.563	+/-0.010					
R0.562	+/-0.010					
Ø0.8115 – 0.8110	N/A					
2.071	+/-0.010					
0.750	+/-0.010					
0.375	+/-0.010					
R0.338	+/-0.010					
3.450	+/-0.010					
Ø0.257	+0.005-0.000					
R0.375	+/-0.010					
0.375	+/-0.010					
R0.032	+/-0.010					
R0.250	+/-0.010					

Measured by:	Audited by:	Prototype Approval:	N/A
Date:	Date:	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	09.05.04	New Issue	KJ/DD	

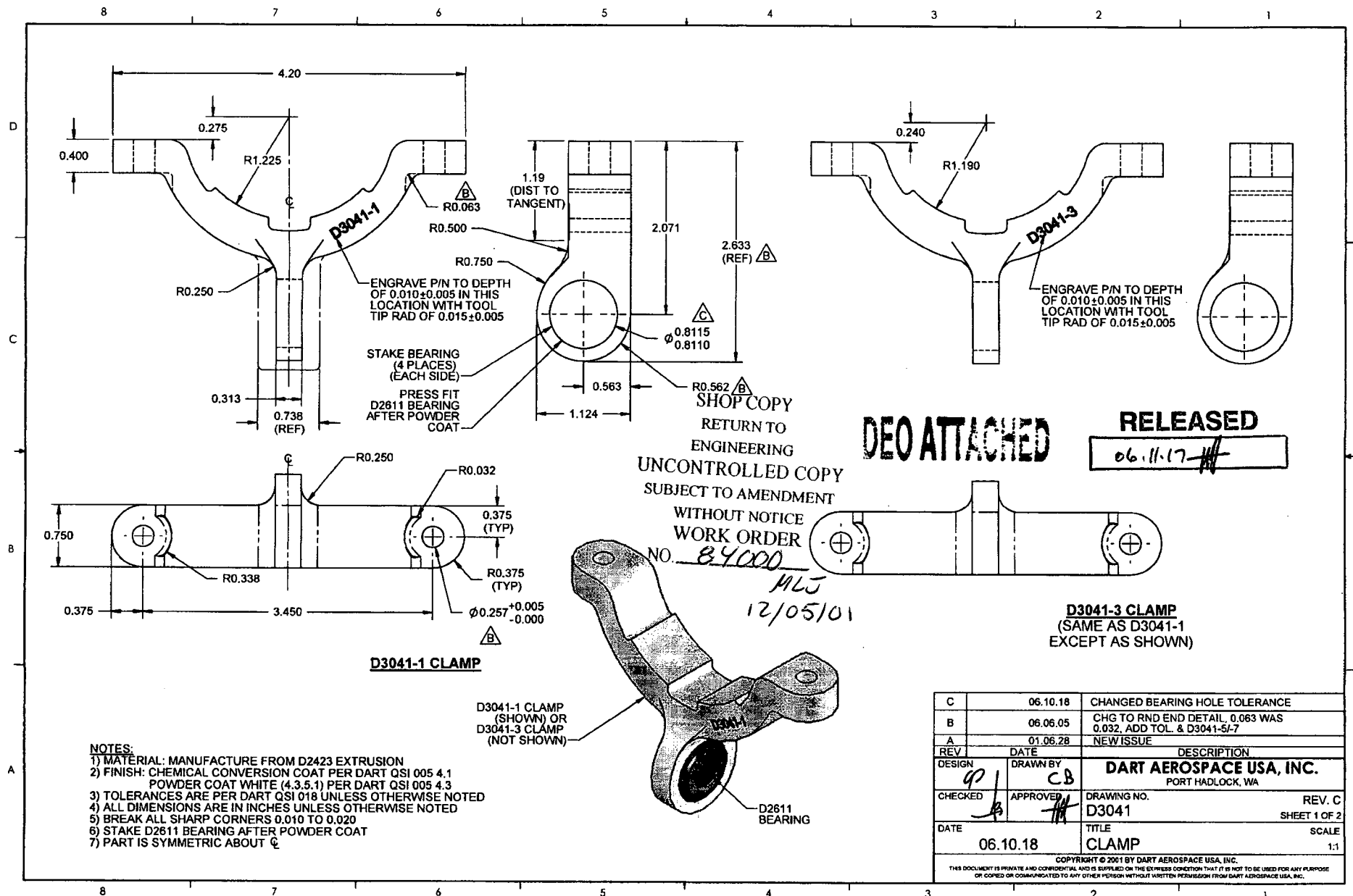
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D3041-1 CLAMP

D3041-3 CLAMP
(SAME AS D3041-1
EXCEPT AS SHOWN)

NOTES:

- 1) MATERIAL: MANUFACTURE FROM D2423 EXTRUSION
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP CORNERS 0.010 TO 0.020
- 6) STAKE D2611 BEARING AFTER POWDER COAT
- 7) PART IS SYMMETRIC ABOUT ϕ

D3041-1 CLAMP
(SHOWN) OR
D3041-3 CLAMP
(NOT SHOWN)

D2611
BEARING

C	06.10.18	CHANGED BEARING HOLE TOLERANCE
B	06.06.05	CHG TO RND END DETAIL, 0.063 WAS 0.032, ADD TOL. & D3041-5/-7
A	01.06.28	NEW ISSUE
REV	DATE	DESCRIPTION
DESIGN	DRAWN BY	DART AEROSPACE USA, INC. PORT HADLOCK, WA
CHECKED	APPROVED	DRAWING NO. D3041
DATE	06.10.18	TITLE CLAMP
		SCALE 1:1

COPYRIGHT © 2001 BY DART AEROSPACE USA, INC.
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE
OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

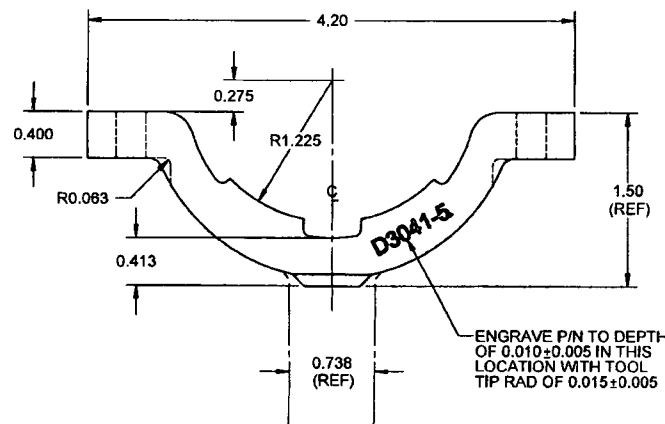
NOTE: Date & initial all entries

24000

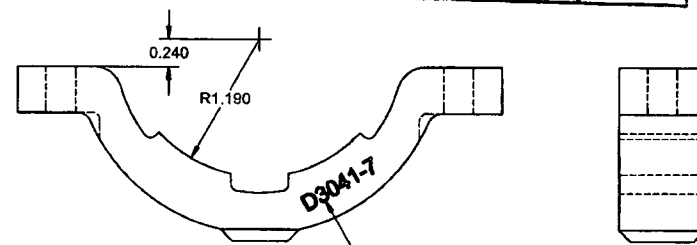
DEO ATTACHE

RELEASED

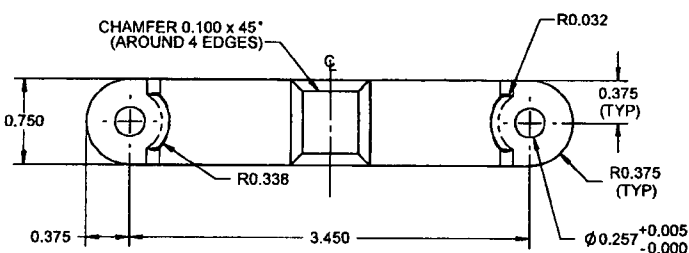
06.11.17



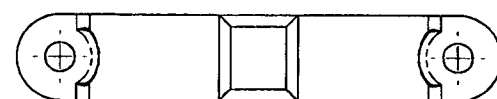
ENGRAVE P/N TO DEPTH OF 0.010±0.005 IN THIS LOCATION WITH TOOL TIP RAD OF 0.015±0.005



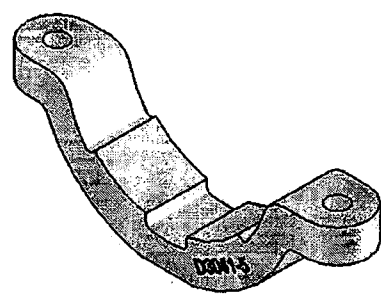
ENGRAVE P/N TO DEPTH OF 0.010±0.005 IN THIS LOCATION WITH TOOL TIP RAD OF 0.015±0.005



D3041-5 CLAMP



D3041-7 CLAMP
(SAME AS D3041-5 EXCEPT AS SHOWN)



- NOTES:
- 1) MATERIAL: MANUFACTURE FROM D2423 EXTRUSION
 - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
 - 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK ALL SHARP CORNERS 0.010 TO 0.020
 - 6) PART IS SYMMETRIC ABOUT C

DESIGN 97	DRAWN BY CB	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3041	REV. C SHEET 2 OF 2
DATE 06.10.18	TITLE CLAMP		SCALE 1:1
COPYRIGHT © 2001 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

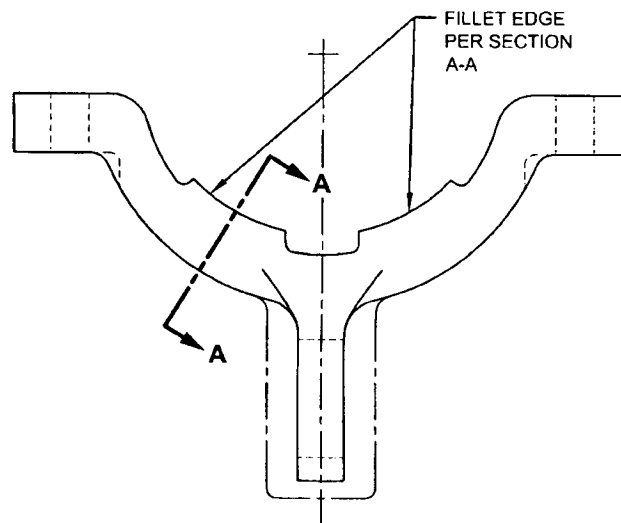
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

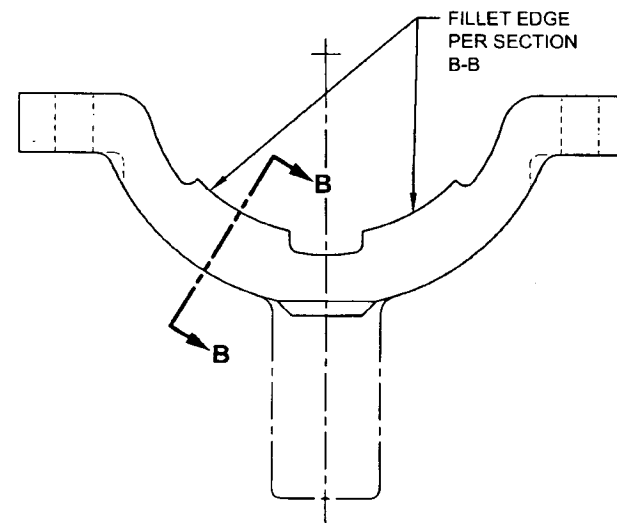
NOTE: Date & initial all entries

DRAWING NO. D3041	TITLE CLAMP	REV. C	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D3041-C-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN ADS	CHECKED	MFG. APPR.	APPROVED		DE APPR.		
DATE 09.03.04	DATE 09.03.12	DATE 09.03.12	DATE 09.03.13		DATE 09.03.13		

ADD FILLETS TO -1/-3/-5/-7 PER SECTIONS A-A AND B-B TO PREVENT CHAFING OF RUBBER CUSHIONS AS SHOWN:



D3041-1 CLAMP
D3041-3 CLAMP



D3041-5 CLAMP
D3041-7 CLAMP



R0.060 MIN - R0.10 MAX
2PL

SECTION A-A
SCALE 2X
SECTION B-B
SCALE 2X

SEE PAR 122 FOR FURTHER DETAILS

RELEASED
09/07/07 MBP

COPYRIGHT © 2009 BY DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS
NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT
WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



20 Terry Fox Drive
Vankleek Hill, Ontario K0B 1R0 , Canada
Tel: (613) 678-3957
Fax: (613) 678-3956

Delivery Slip No.: 18566
Date: Jun 25, 2012
Page: 1

Sold to: Dart Aerospace Ltd. Att. Linda Lacelle 1270 Aberdeen Street Hawkesbury, Ontario K6A 1K7	Ship to: Dart Aerospace Ltd. Att. Linda Lacelle 1270 Aberdeen Street Hawkesbury, Ontario K6A 1K7
Order No.: 16878	Sold By: Dewar, Eric
Shipped By: your truck	Ship Date: Jun 26, 2012

Description	Unit	Ordered quantity	Shipped quantity	Backorder quantity
D3041-1 Clamp as per dwg D3041 Rev.C B8400	Each	30	30	
D3041-3 Clamp as per dwg D3041 Rev.C B84001	Each	30		30
The delivered goods must be inspected upon receipt to confirm compliance. Should there be discrepancies please notify METEC within 30 days of delivery. The goods are otherwise deemed accepted.				
Received by _____		Thank you for your order!		



20 Terry Fox Drive, Vankleek Hill, Ontario K0B 1R0
Tel. (613) 678-3957 & (613) 678-2782 Fax (613) 678-3956 metec@metec.ca

CERTIFICATE OF CONFORMITY

SOLD TO:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ont.
K6A 1K7

SHIPPED TO:

same

<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>PART NAME</u>	<u>P.O. NUMBER</u>
30	D3041-1	Clamp <i>517/06177</i>	16878

MATERIAL: supplied by DART B81557

We hereby certify that the above parts were made in conformance with applicable drawings.

METEC Metal Technology Inc.

Jan Norris

Vankleek Hill, June 26, 2012